

A Report on COMP102 Mini Project



Project Title: Contact Management System

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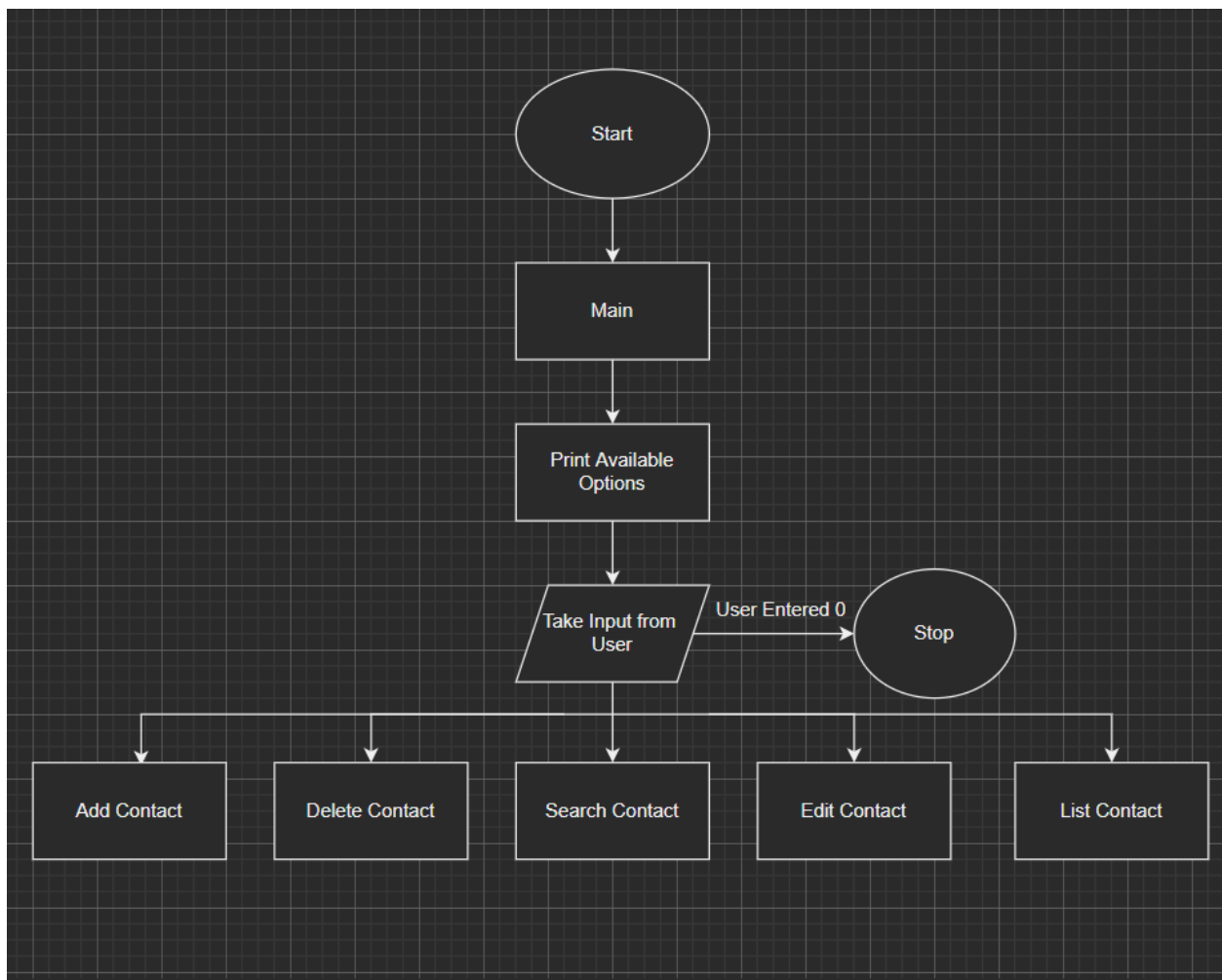
CE(1st Year 1st Semester)

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Contact Management System

Contact Management System is a simple console application. In this project, user can add, view, edit, search and delete contacts. All added and edited records are saved in a file. File handling has been used to record all data. Data structure is used to store the user's name, address, email and contact number. Overall, understanding the simple source code of this project will teach you how to add, edit, search, list and remove data using file handling in c.

Flowchart



Features

1) Menu Part

It is programmed in the main function. The menu in this program displays the current list and contains six choices: Adding new contact, Remove existing contact, Search a contact, Edit contact details, Display all the contacts and exit the program.

Here switch is used to select the required options.

```

                                     Welcome to Contact Management System

[1]-----      Add a contact
[2]-----      Delete a contact
[3]-----      Search a contact
[4]-----      Edit contact detials
[5]-----      Display all contacts
[0]-----      EXIT
Enter the choice:
```

When user enters any other digits than above options then it will show invalid choice and let user chose options again.

2) Add a contact

This option is used to add new contact in our contact management system. This will take Name, Address, Email and Phone Number from the user and store it in one file. Data are stored in binary format in .dll file. Here first structure and file pointers are defined. File is opened in append mode to store data entered by user. After storing data. File is closed.

```
Enter Name in format Firstname_Lastname  
Anmol_Guragain
```

```
Enter Address  
Jhapa
```

```
Enter Email Address  
anmol@gmail.com
```

```
Enter Phone Number  
987456321
```

```
Data Recorded Successfully.
```

3) Delete a contact

This option is used to delete a contact. Here, program asks user to enter full name. After that program finds all the other data of given name and delete data stored in it.

Here **del()** function is used to delete a contact. Here also firstly structure and file pointers are defined. After that program asks user to enter name to delete. The name entered by user is stored in one string. After that my program reads data from file using **fread()** library function and check whether the data entered by user matched with data stored in structure with string comparison function **strcmp()**. If those two data are matched then program will write all data except matched in temporary file using **fwrite()** function. After that data of temporary file will be transferred to main file using **fread()** and **fwrite()** and initial data of main file is deleted. You can see program for how coding is done for this condition.

```
Enter the contact name to delete: Anmol_Guragain  
If Data Found Then It will be deleted successfully. If data is not found then it will discard
```

After deleting there won't be any data stored in it in list.

```
Enter the choice:5
The Stored Records Are:
1      Name=Samir_Wagle      Address=Satdobato      Email= sameer@gmail.com      Phone.No=9865321478
2      Name=Nischal_Baral    Address=Pokhara        Email= nischal@gmail.com     Phone.No=9874561230
3      Name=Mohit_Shahi      Address=Satdobato      Email= mohit@gmail.com       Phone.No=9865321014
4      Name=Abiral_Adhikari   Address=Dang           Email= abiralhancy@gmail.com  Phone.No=9876543210
5      Name=Ram_Shrestha     Address=Pokhara        Email= ram@gmail.com         Phone.No=9841234100
6      Name=Alson_Dhakal      Address=Jhapa          Email= alson@gmail.com       Phone.No=9852636547
7      Name=Anmol_Guragain    Address=Jhapa          Email= anmol@gmail.com       Phone.No=987456321
End of The List
```

This is initial screenshot of list after deleting

```
The Stored Records Are:
1      Name=Samir_Wagle      Address=Satdobato      Email= sameer@gmail.com      Phone.No=9865321478
2      Name=Nischal_Baral    Address=Pokhara        Email= nischal@gmail.com     Phone.No=9874561230
3      Name=Mohit_Shahi      Address=Satdobato      Email= mohit@gmail.com       Phone.No=9865321014
4      Name=Abiral_Adhikari   Address=Dang           Email= abiralhancy@gmail.com  Phone.No=9876543210
5      Name=Ram_Shrestha     Address=Pokhara        Email= ram@gmail.com         Phone.No=9841234100
6      Name=Alson_Dhakal      Address=Jhapa          Email= alson@gmail.com       Phone.No=9852636547
End of The List
```

This is final screenshot of list after deleting

You can see there is no Anmol_Guragain after deleting.
Hence file is deleted.

4) Search A Contact

This option is used to search a required contact. Here program asks user to input what to search and display the data which user wanted to search.

Here **search()** function is used to search the data and print out the data that match with the data entered by user. Program will check first letters only. For example, if you enter "a" then program will print out all the data starting with "a" only.

About the logic of this function, firstly all the structures and function pointers are defined and file is opened.

After that user is asked what to searched and user input is stored in string. After that function will read record from dll file using **fread()** and starts to compare the user entered name with name stored in structure using **for loop**. those names are checked whether they matched or not using **strcmp() function** then program will print out all name, address, email, phone number. If those names are not matched program will print out "No Data Found" and returns to main menu.


```
Contact Search
Enter Name Of Contact to Search
A
search result for A is

                                Record Found

Name      Abiral_Adhikari
Address   :Dang
Email :    abiralhancy@gmail.com
Phone Number : 9876543210

                                Record Found

Name      Alson_Dhakal
Address   :Jhapa
Email :    alson@gmail.com
Phone Number : 9852636547
2 match(s) found!
```

Here, when user enters A , program will display all the files with starting letter of name A. You can see two records starting with A are shown .

5) Edit Contact Details

This option is used to edit or update the existing details. Here program asks user to input old name and if the name entered by the user exists then program will ask user to enter new name, address, email and phone

number. If name entered by user does not match with record program will exit to main menu.

Here firstly program ask user the name of contact user want to edit. After that file where all data are stored is opened and all the data are fetched to program to access the data using **fread()**. **strcmp()** is used to check whether entered name match with any name from the file where data are stored. If those name matched then program will allow user to enter updated data and overwrite using **fwrite()** function. After that file is closed.

```

Welcome to Contact Management System

[1]----- Add a contact
[2]----- Delete a contact
[3]----- Search a contact
[4]----- Edit contact detials
[5]----- Display all contacts
[0]----- EXIT
Enter the choice:5
The Stored Records Are:
1      Name=Samir_Wagle      Address=Satdobato      Email= sameer@gmail.com      Phone.No=9865321478
2      Name=Nischal_Baral    Address=Pokhara      Email= nischal@gmail.com      Phone.No=9874561230
3      Name=Mohit_Shahi      Address=Satdobato      Email= mohit@gmail.com      Phone.No=9865321014
4      Name=Abiral_Adhikari    Address=Dang      Email= abiralhancy@gmail.com      Phone.No=9876543210
5      Name=Ram_Shrestha      Address=Pokhara      Email= ram@gmail.com      Phone.No=9841234100
6      Name=Alson_Dhakal      Address=Jhapa      Email= alson@gmail.com      Phone.No=9852636547
7      Name=Ram_Kalyan      Address=Janakpur      Email= ram321@yahoo.com      Phone.No=9855447766
End of The List
```

Initially these data are stored here. I am going to edit Samir_Wagle

```
C:\Users\lenovo\Desktop\original\main project\c1\g1.exe
Enter the contact name to modify: Samir_Wagle

Press Enter After entering one data:

Enter New Name: Wagle_Samir

Enter New Address:      home

Enter Email Address:    waglesameer@gmail.com

Enter Phone Number:    9844552200
```

After Editing Data

```
Enter the choice: 1
The Stored Records Are:

1      Name=Wagle_Samir      Address=home      Email= waglesameer@gmail.com      Phone.No=9844552200
2      Name=Nischal_Barai    Address=Pokhara      Email= nischal@gmail.com      Phone.No=9874561230
3      Name=Mohit_Shahi      Address=Satdobato      Email= mohit@gmail.com      Phone.No=9865321014
4      Name=Abiral_Adhikari    Address=Dang      Email= abiralhancy@gmail.com      Phone.No=9876543210
5      Name=Ram_Shrestha      Address=Pokhara      Email= ram@gmail.com      Phone.No=9841234100
6      Name=Alson_Dhakal      Address=Jhapa      Email= alson@gmail.com      Phone.No=9852636547
7      Name=Ram_Kalyan      Address=Janakpur      Email= ram321@yahoo.com      Phone.No=9855447766

End of The List
```

You can see Samir_Wagle changed to Wagle_Samir and other details are also changed.

6) Display all the contacts

This option is used to display all the data entered by the user. You can see all the data stored are displayed when we go to this option.

Firstly **disp()** function is opened. After that structure and file pointer are defined. After that file is opened using **fopen()**. After that **fread()** is used to read. After that **printf()** function is used to print out all the data stored. After printing file is closed using **fclose()** function.

```

Welcome to Contact Management System

[1]----- Add a contact
[2]----- Delete a contact
[3]----- Search a contact
[4]----- Edit contact detials
[5]----- Display all contacts
[0]----- EXIT
Enter the choice:5
The Stored Records Are:
1      Name=Wagle_Samir      Address=home      Email= wablesameer@gmail.com      Phone.No=9844552200
2      Name=Nischal_Barai    Address=Pokhara      Email= nischal@gmail.com      Phone.No=9874561230
3      Name=Mohit_Shahi      Address=Satdobato      Email= mohit@gmail.com      Phone.No=9865321014
4      Name=Abiral_Adhikari    Address=Dang      Email= abiralhancy@gmail.com      Phone.No=9876543210
5      Name=Ram_Shrestha      Address=Pokhara      Email= ram@gmail.com      Phone.No=9841234100
6      Name=Alson_Dhakal      Address=Jhapa      Email= alson@gmail.com      Phone.No=9852636547
7      Name=Ram_Kalyan      Address=Janakpur      Email= ram321@yahoo.com      Phone.No=9855447766
End of The List
```

